

5. Still maintaining the knee flexed carry the foot into full dorsal flexion. In this way, should an anterior fragment of the lower end of tibia have dropped down it will be forced back into place.

6. Without losing any dorsal flexion, the whole foot is turned or twisted inward to the limit of supination.

7. While maintaining the posture obtained by the preceding maneuver, a thick layer of cotton wadding is applied, and over it a plaster of paris cast. Correction is maintained while the plaster is setting.

8. As soon as the plaster has set firmly it is good surgery to split the cast throughout its length. I do this not for the reason set down in the textbooks, namely, fear of gangrene, but because I believe that in the course of our studies of the cause and treatment of ununited fractures swelling has been definitely proven to be an important factor in the normal process of repair of bone.

Your patient may be got up on crutches and wearing his cast in three weeks. At this time the cast may be so loose that you will have to renew it without, however, altering the position of your foot.

At the end of six weeks you can have the inner side of the sole and heel of his shoe raised one-fourth inch and flanged inward, and the shank of shoe blocked solid.

If the patient be heavy, an outside leg iron, working in a round socket just in front of the heel, should be supplied. A strap about the ankle pulls the foot over toward this leg iron and into a position of supination. This shoe, or shoe and iron, should be worn for three or four months longer.

If this precaution is not taken what at first appears to be a good result will gradually, through stretching of the soft callus, be transformed into a painful pronated foot.

Though not germane to the general heading of this paper, fractures of the heel would appear to be so common among industrial accidents that a note concerning them is appended here.

The treatment given those fractures of the heel which have come before me for review has invariably failed to prevent a crippling deformity.

The cause of such fractures is a fall from a height where the patient lands squarely on his feet in a standing position.

The lesion is a crushing of the os calcis, usually with involvement of the sub-astragaloid joint and sometimes of the astragalus. It may be so severe that if the bone is cut down upon the fragments will resemble a bag of pebbles. In appearance the heel is widened from side to side and shortened from above downward.

Manifestly the worst possible treatment would be prolonged immobilization in full dorsal flexion. Extreme dorsal flexion being always associated with abduction. But this would seem to be precisely the treatment usually employed.

The object of appropriate treatment is to return the os calcis to its original shape and to re-establish normal motion in the sub-astragaloid joint.

This can be attempted in the following way:

(1) Relax the pressure on the heel by plantar flexing the foot, and maintain this plantar flexion to the end of treatment.

(2) Pull the heel down by passing a sound from side to side in front of the Achilles tendon and making traction upon it. Make sure of pronation and supination by rocking it from side to side to the limits of normal motion while making traction.

(3) Place the foot on its side on a sand sac and with a padded hammer impact the fragment.

(4) Immobilize in a plaster of paris dressing, the foot being still in plantar flexion.

(5) In a few days, and never later than after two weeks, begin with gentle passive motion in the sense of supination and pronation.

(6) Keep off the foot for three months and resume walking while wearing an appropriate arch support.

As in all fracture work proper massage will hasten recovery.

The foregoing is an outline of the way in which your orthopedist, who is primarily a bone surgeon, views fresh fractures of the long bones and of the principles upon which he bases his treatment.

SOCIETY REPORTS

MARIN COUNTY,

Marin County Medical Society met on Thursday evening, May 12, at the home of Dr. E. J. Hund in San Anselmo. The paper of the evening was by Dr. R. L. Ochsner, on the early diagnosis of tuberculosis. The paper received much discussion.

Among those present were Drs. S. M. Augustine, J. P. Crawford, H. O. Howitt, E. J. Hund, H. O. Hund, W. F. Jones, L. L. Stanley, C. A. Flannagan and E. W. Alexander.

At the close of the meeting refreshments were served.

Respectfully submitted.

O. P. STOWE, Sec.

PLACER COUNTY.

The Placer County Medical Society held its regular meeting in Auburn, Saturday evening, March 25th. Through the courtesy of the Trustees of the Placer Union High School, the Assembly Hall of that building was used as a place of meeting.

The March meeting was a Public Health meeting, and for this reason a special invitation was sent to each member of the local Boards of Health of Placer County, inviting an attendance at the meeting.

Doctor James G. Cumming, director of the Bureau of Communicable Diseases of the State Board of Health, read a paper entitled "The Protection of Public Water Supplies with Special Reference to Dysentery and Typhoid Fever." Professor W. B. Herms, of the University of California, who has charge of the special work to be done by the State Board of Health in its campaign against malaria, gave an address illustrated by lantern slides, on "Practical Aspects of Malaria Control."

These papers were discussed by members of the society and visitors.

It is expected that the next meeting will be held in Roseville.

ROBERT A. PEERS, M. D.,
Secretary.

MENDOCINO COUNTY MEDICAL SOCIETY.

At the call of the president, Dr. L. C. Gregory, a meeting of the Mendocino County Medical Society was held at Hotel Cecille, Ukiah, on the evening of the 3d of June.

Invitations to be present had been extended to all

the profession in the county. As the majority of the members had had 60 miles or more of mountain roads to cover, the proceedings were started by a banquet gotten up by the Ukiah members. Before starting upon that most of all important matter—that of supplying fuel for the delicate and superbly regulated mechanism, the human body—an informal and general levee was held in the foyer, giving all of us the privilege of making the acquaintance of our special guest of the evening, the jovial Dr. Gustaf J. Bergener of San Francisco, and I must say it does make a fellow feel good to meet such a man.

The Ukiah members did not wish to allow the coast fraternity to surpass them in hospitality, and I do believe the hostelry had been given carte blanche, which it had utilized to its fullest extent.

In addition to Dr. Bergener, those partaking of the excellent cuisine of this hostelry were: Drs. J. Liftchild, Ukiah; G. A. Woelffel, Willits; G. W. Stout, Ukiah; R. Babcock, Willits; F. C. Piersol, Mendocino; F. G. Gunn, Willits; S. L. Rea, Ukiah; D. R. Smith, Talmage; C. L. Sweet, Elk; H. H. Wolfe, Albion; F. O. Cleland, Ukiah; T. B. Hopkins, Potter Valley; F. McLean Campbell, Fort Bragg; L. C. Gregory, Fort Bragg; O. H. Beckman, Fort Bragg; also Mr. Dominguez, Dr. Bergener's lantern operator, and two Fort Bragg High Schoolers—chips off the president and secretary—the former an embryo M.D., the latter to be developed into an architect. May the sun ever shine brightly upon all of the partakers, and especially so upon those whose guests we were.

After every one had done justice to himself and the food, the president called upon the secretary to say something. The secretary does not recall all he said, but he is sure his remarks could not have spoiled any appetites as those were already satisfied, and he hopes nobody carried away any sore bumps upon their persons. He was followed by Dr. Liftchild, whose after dinner speech will go down into the history of Mendocino County Medical Society gatherings as one of the most mirth-producing remarks that ever hit its professional funnybone. This was followed by a funny rhyme entitled "A Matter of Dress" by Dr. Woelffel of Willits.

After the banquet came the special feature of the evening by Dr. Bergener, who read a paper on "Gastric Symptoms without Gastric Lesions," which Dr. Bergener's assistant illustrated by X-ray lantern slides. This paper and its scope represents such important and excellent matter that it is impossible for me to even attempt to do it justice in a few words, and therefore I do not even try it.

The Mendocino County fraternity gave Dr. Bergener their sincere vote of thanks.

Dr. L. McLean Campbell, Fort Bragg; Dr. George August Woelffel, Willits; Dr. Judson Liftchild of Ukiah, and Dr. Geo. W. Stout, also of Ukiah, made applications for membership. Their names were sent to Dr. P. M. Jones, the State Secretary, for approval according to the rules.

The next place of meeting will be Fort Bragg. This meeting was the most successful one of its kind ever held in this county.

OSWALD H. BECKMAN, Secretary.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

During the month of May, 1916, the following meetings were held:

Section on Medicine.

Tuesday, May 2d.

1. The Use of Emetin.....A. C. Reed
2. Some Aspects of Treatment of Infantile Paralysis.....H. W. Wright

General Meeting; Southern Pacific Hospital Clinical Evening.

Tuesday, May 9th.

1. Stereo-Roentgenology (Illustrated).....E. G. Cambert
2. Interesting Fractures (Illustrated).....J. H. O'Connor, S. J. Gardner and W. B. Coffey
3. Echinococcic Bone Disease; Report of Case (Illustrated).....C. A. Walker

4. Report of 15 Recent Cases of Trichiniasis (Illustrated).....G. R. Carson
 5. Report of Case of Hepatic Cirrhosis (?).....J. Wilson Shiels
 6. Foreign Bodies of the Eye; Localization; Prognosis (Illustrated).....W. F. Blake
 7. Salvarsan and Mercuric Chloride in Lues.....W. T. Cummins
- Section on Eye, Ear, Nose and Throat.**
Tuesday, May 23d.

Presentation of Cases:

- A. Endothelioma of nose treated by Killian operation and X-ray.....H. B. Graham
 - B. Traumatic cataract of ten years duration, now absorbing spontaneously.
 - C. Report of Case; double-sided optic atrophy; question as to etiology.....Hans Barkan
2. Eye, Ear, Nose and Throat in Relation to Diseases of the Thyroid and Thymus.....Hans Lisser
 3. Demonstration of Roentgen Plates Illustrating Sinus Disease.

Section on Urology.

Tuesday, May 30th.

1. Hydronephrosis.....R. L. Rigdon
2. Protein Cystin Renal Calculi.....C. W. Lippman
3. Late Results of Operation for Hypospadias.....F. Fehleisen
4. Gonococcic Fats in the Complement Fixation Test.....M. Wolff

TRANSACTIONS OF THE SURGICAL SECTION OF THE SAN FRANCISCO COUNTY MEDICAL SOCIETY, MAY 16, 1916; CHAIRMAN, HAROLD BRUNN, M. D.

Reports of a Few Operative Cases and Pathological Specimens.

By GEORGE FRANKLIN SHIELDS, M. D., F.R.C.S., Eng., San Francisco.

Gentlemen of the Surgical Section:

By your courtesy I will present four specimens from cases, and a short mention of a fifth case, occurring in my practice during the past six months. They were all in Sonoma county, from the practice of two doctors, and were all cared for in the local sanitarium.

1. Two large gallstones removed from the cystic duct of a woman in the late fifties who had never had any biliary symptoms until the present attack, which was characterized by fever (103° F.), small, thready, rapid pulse, pain, vomiting, very slight icterus, leucocytosis, and an exquisitely tender swelling in the right upper quadrant of the abdomen reaching from just above the level of the umbilicus to the free margin of the ribs, dull on percussion. Diagnosed by Doctors Hays and Thompson as acute suppurative cholecystitis with probable ball valve stone in the cystic duct (note the perfect ball valve faceting of the stones). Diagnosis absolutely confirmed at operation. Result, recovery.

2. Ten small gallstones (note peculiar mulberry surface), nine from the gallbladder, one from the common duct by milking back. Removed from a woman in the late twenties who had had for several years attacks of colic which had passed off, but at last had developed profound jaundice associated with high fever and agonizing colic. Diagnosed by Doctor Hays as a partial obstruction of the common duct by stone. Diagnosis confirmed at operation, the largest of the stones being in the duct. Result, complete return to health.

3. A uterus removed from a young cachectic married woman, twenty-eight years of age, for carcinoma. At the time of the operation the cavity of the body was as large as a base ball, and full of a serosanguinous fluid; the cervix was fungoid and bled easily; at a former operation both tubes and ovaries were removed for double salpingitis, doubtless of gonococcic origin. The case was in the practice of Doctor Thompson, who diagnosed the condition, and confirmed the diagnosis micro-

scopically before I was consulted. Operation followed by recovery, marked increase in weight and sense of wellbeing.

4. An extensive intestinal intussusception removed from a man aged forty, who was suddenly stricken with extreme colicky abdominal pain and nausea followed by profuse vomiting which soon became fecal. The patient developed all the symptoms of complete intestinal obstruction, became enormously distended, and went rapidly into collapse. Doctor Hays made the diagnosis of intussusception superimposed on some former obstructive condition, since the patient a year before had had symptoms of a somewhat similar kind which passed off after the application of hot fomentations and the use of purgatives. He stated that before the distension had taken place, he could make out a sausage-shaped tumor below the umbilicus, and outlined its position before the operation. As you see from the specimen there is every evidence that the condition was a chronic one. Note the ring of fibrous tissue at the entrance of the intussusceptum into the intussusciens; this evidently permitted the passage of feces until the bowel suddenly wedged, and complete obstruction occurred. Subsequent to removal a side-to-side anastomosis was made. After going through a most critical post-operative history, the patient recovered completely and is now at work and well.

5. The case of a small boy aged four, who was taken suddenly with "bellyache," fever, vomiting, rapid wiry pulse, and increasing abdominal distension; quickly followed by general exquisite tenderness on palpation over all the quadrants. A tympanic note was present but not so marked in the right lower quadrant. Doctors Hays and Thompson, after three days' observation, made a diagnosis of general peritonitis due to fulminating appendicitis, at the same time holding in reserve the possibility of tubercular peritonitis. Operation confirmed the diagnosis, demonstrating a general purulent peritonitis due to a gangrenous appendix. The appendix was removed, and free drainage instituted. After a trying and stormy two weeks, the patient now seems to be on the way to recovery.

I now beg a moment to make three points which these cases and specimens have suggested to me.

Firstly. The uterus is a sermon in itself. Years since the adnexa on both sides were removed and a foul, infected, useless, and dangerous organ was left as a menace to the health of the patient, either from inflammatory or malignant changes, in this instance the latter took place. Adding this to many other such cases, an axiom develops; i. e., whenever it is found necessary to remove the Fallopian tube on both sides the functionless and dangerous uterus should under no circumstances be left.

Secondly. These five major operations go to prove that while we may miss the great conveniences of the completely equipped operating room of the metropolitan hospital, still, when we have the assistance of experienced, able, and conscientious doctors and nurses, we may expect just as good results irrespective of what is after all only furniture, and not intrinsically necessary. Hence, it is often needless to put patients of moderate means to the expense of journeys and the shock and anxiety of leaving their own surroundings to go among strangers for the sole reason of our own convenience.

Thirdly. Taken together, these five cases supply a valuable argument against the all-too-prevalent tendency to regard Group Work in hospitals and clinics as absolutely necessary for correct diagnosis, a tendency which reaches its acme in the recent writings of Doctor Richard C. Cabot of Boston. Not one of us can fail to recognize, laud, and use group work whenever available, as it is the very best means of arriving at a true diagnosis; best for the patient, best for the hospitals and clinics, and best for the physician and the surgeon. However, in the very nature of things, group work can never be carried out to the exclusion of intelligent one-man work: witness these cases occurring in

a small country town, and every one of them not only diagnosed, but diagnosed to an unusual detailed perfection: remark the intussusception in a middle-aged man, the appendicitis in a four-year-old boy, the pre-operative correct locating of the stones in the biliary cases, all diagnoses of which a surgical teacher or a hospital surgeon might well be proud.

Gentlemen, Doctor Cabot, in his effort to make a really good point, has over-stepped himself, and since he has gone over to yellow journalism under the title "Better Doctoring for Less Money" (the American Magazine, April and May 1916), and has allowed the editor to give him great weight by describing him as follows: "Dr. Cabot is one of the most distinguished physicians in the United States. He is chief of the medical staff in the Mass. General Hospital." Considering this quotation, I say that since he has done this, and openly attempted to belittle the general practitioner in the public eye by practically stating that he cannot fulfil his functions on account of ignorance, Dr. Cabot should be regarded as a menace to the profession, a man whose brilliancy and ability has been clouded by a kakoesis for dangerous popular publicity.

In closing, I am safe to state that the finished diagnostic ability evidenced in Sonoma county will be found just as conspicuous in other small towns in these United States, and often times is as conspicuous by its absence in larger cities, among the rank and file of general practitioners on account of the facility of consultation in puzzling cases.

Aneurysm with Abdominal Symptoms.

By C. W. LIPPMAN, M. D.

In the past twelve months I have seen thirty-eight aneurysms, twenty-seven in the San Francisco Hospital, eleven in my private practice; over half of these were not even suspected; five came with a diagnosis of gastric carcinoma because of haematemesis, loss of weight, and cachexia; many came with a diagnosis of intercostal neuralgia; two came with plaster-casts for chronic arthritis of the vertebrae—a third was about to be referred to an orthopedist for his "rheumatic" symptoms. The reason these are presented at a surgical meeting is because I believe that every chronic abdominal case should have a complete routine examination, including stool examination, fluoroscopy, and Wassermann, before the abdomen is opened. A case in point was Mrs. W., who was sent to me with typical gallbladder symptoms, paroxysms of pain in the right hypochondrium radiating to the right shoulder—attacks came on chiefly at night. I found nothing in the gastrointestinal tract—missed the aneurysm on my first examination. On a subsequent examination I found a very small area of expansile pulsation at the bend of the arch of the aorta into the descendens. Anti-luetic treatment relieved the pain—the tumor decreased in size.

Note:—The criticism at the time of delivering this paper was that this particular case was an aneurysm with gallstones. The autopsy performed on May 30 showed a small aneurysm in the situation described and no gallstones.

3. Cleft Palate: Discussion of Operative Technic, with Illustrative Diagrams.

Abstract of Paper.

By H. M. SHERMAN, M. D.

The anatomical conditions of cleft palate were briefly mentioned to illustrate the possibilities of the two accepted forms of operation, the Langenbeck and the Lane. Contrary to the statement of others, the Langenbeck technic was declared applicable to all clefts and at all ages of the patient. In general, the writer preferred to wait until the child weighed 15 lbs. He described how, by elastic compressive traction, the maxillae could be approximated to lessen the width of the cleft. He described in detail, with illustrative diagrams, the technic, making points of the splitting of the sides

of the cleft instead of paring them to avoid loss of tissue and to permit both pharyngeal and buccal sutures in the soft palate and uvula. He advised mattress sutures in the flap at the junction of the hard and soft palate and anterior to that place. He advocated ample lateral releasing incisions, made to avoid vessels and nerves and the follicles of unerupted teeth. He advised a waxed tape put around these flaps after their suturing to control the pull of the muscles of the soft palate and prevent the tearing out of sutures. As it was not possible to suture the entire cleft in this way and be sure of a maintenance of the circulation, he restricted this first operation to the posterior half of the palate. Later he closed the anterior part by the Lane method, and the lip was done between these two by a simple method which avoided any notching. He spoke of the disappointments in healing which were sometimes encountered and of the need under these circumstances for secondary operations. He reported satisfactory results by the method, from a cosmetic and also a functional viewpoint. Paper to be printed in full later.

Discussion.

Dr. J. Henry Barbat: I am very glad indeed to have heard Dr. Sherman's paper. I may adopt his method of operation some day, but for the past eight years, ever since I had the pleasure of meeting Mr. Lane, I have done Lane's operation, with a set of instruments which he sent me. I will pass around the needle holder, also his periosteal flap elevator, and last, but not least, one of his most valuable instruments—the little mouth gag, the most satisfactory gag I have ever seen except when the patient has teeth. This is placed in the child's mouth and drawn back, and the little points prevent the thing from slipping. Mr. Lane's knife is a very small article, almost like a cataract knife, but very satisfactory for splitting flaps and making incisions in the palate.

Mr. Lane takes the child, if possible, during the first 24 hours, before it has had time to be badly fed, poorly nourished, and therefore to have its tissues in bad condition for healing. The tissues are almost of the embryonic type and unite readily.

The incisions may or may not extend over the alveolar process, depending upon the width of the cleft.

The oldest child upon whom I operated was a boy of 10, with a cleft palate and hare lip. Naturally I could not touch the alveolar process, but I got a perfectly satisfactory result. If you cut beyond the alveolar process, you sacrifice the milk teeth on one side.

(Description of Lane technic by amplifying Dr. Sherman's diagrams.)

The greatest difficulty I have had is in closing the little hole between the nose and mouth, simply because of my poor technique.

With regard to speech, Mr. Lane states that if the patients are operated upon very early, the probabilities are that they will not have a nasal twang. If allowed to go on until they are able to speak, they will unquestionably have the nasal twang no matter how well you may fix the soft palate. He explains this by saying that the sounding part of the nose is allowed to contract, while if operated on early the nasal fossa remains more open, due to the child breathing through the nose, and the nasal twang is prevented.

In cases where the premaxillary bone projects, he does not endeavor to force it back, but merely brings the lip together over it, and finds this sufficient to force it back in place in a few weeks.

As Mr. Lane says, the children take the anesthetic like milk and the operation like a joke, and after a fortnight, if you look into the child's mouth you can scarcely see where the palate has been denuded.

Dr. C. G. Levison: The Society is to be congratulated on the character of this paper and the manner in which it has been presented. The honesty Dr. Sherman has displayed in telling about his failures is very edifying.

Two points of importance have not been mentioned. One is the anesthetic used and the other is the position of the patient on the operating table.

In considering the age that is most desirable for operation there are several points that in my opinion, have not been sufficiently emphasized, one in particular being that which Lane has brought out in reference to very early operation, for many of the disadvantages and difficulties that are experienced in 15-pound children are obviated when operation is performed upon infants only 24 hours old. At this age the cleft is much smaller than it is a month or two later, for it widens relatively quickly so that an operation performed upon children a day or two old is much easier in every respect than when performed later. They bear operations and anesthetic remarkably well.

A point mentioned by Dr. Barbat is the fact that the tissues at this age are practically embryonic, very vascular and full of vitality; it must also be remembered that micro-organisms have not yet developed and that the tissues as well as the secretions of the mouth are practically sterile.

We have all had the experience of operating upon these young children for circumcision, etc., and know that their tissues heal with extraordinary rapidity.

I spent quite some time working with Mr. Lane at the Great Ormond Street Hospital and I saw him operate two or three of these cases almost daily. He operates them with remarkable skill and he repairs the cleft palate and hare lip at one sitting. As is well known, Lane's is a flap operation without lateral incisions. One of the important principles that must be observed in all of these operations is that there shall be no tension of the tissues because when this occurs failure is probable. A point that Lane brings out is the difficulty in closing the little space at the angle of the cleft at alveolus; this space is very difficult to close by suture and Lane has advised the employment of very small needles which he uses with his needle holder; they have a full curve one-third of an inch in diameter and one is able to suture this space in a manner not possible by any other means. Lane fills in this space by swinging in a piece of the tissue that is usually removed from the hare lip.

Another point is to keep the child, when crying, from moving its mouth, which interferes with healing. Lane uses the so-called undertaker's stitch which is introduced from within the mouth; passing through the face it is brought out at the point of union of the ala of the nostril and the upper lip; the needle is then passed through the tissues again from without inward almost through the same puncture; there is enough tissue held in the loop of the suture to prevent it from pulling out. The thread is then carried across the front of the gum and is re-introduced through the corresponding side from within outward and back again into the mouth in the same manner; the suture which now has a loop held at each ala of the nostril is then tied in front of the gum under the lip. It holds the lip tissues so that they cannot be moved and relieves the tension on the tissues so that healing is more apt to occur. The same result is accomplished by Dr. Sherman's plaster appliance.

The suture that I have found of value as far as cosmetic effect is concerned, is introduced as follows: In closing the hare lip, catgut sutures are re-introduced through the mucous membrane and are brought up to the cutaneous surface, but do not pass through the skin; they are re-introduced on either side of the lip and brought out on the side corresponding to the point at which it has been introduced; when this tissue is tied on the mucous side the tissues are firmly held and as they are catgut, they do not need to be removed, while being tension sutures no skin markings are left to disfigure the face.

The upper layers of epiderm are next united with a fine silk suture and a No. 16 needle such

as is used in blood vessel work; this suture is a continuous one and is only passed through the upper layers of the epiderm. Perfect approximation of the skin is obtained without any suture markings; this suture does not need to be removed, as it falls off with the desquamation of the skin in a few days.

Dr. G. Franklin Shiels: Two points I have noticed to be of some value in handling these operations: (1) to stop the motion of the face, as in crying, etc., after operation—the best way to do is to make an incision at the junction of the buccal and maxillary mucous membrane and loosen up the whole of the face tissues from the underlying bone, so that you can move them freely at the time of operation and have less post-operative strain and motion during healing; (2) in regard to keeping the child quiet, one-grain doses of chloral keep the child restful. Chloroform is the anesthetic of choice, and chloral after operation is a producer of quiescence.

Dr. Harry M. Sherman, closing discussion: This knife, which Dr. Barbat showed, is very nice, although a little large. I prefer the Politzer knife, which is a little smaller, curved, and designed to puncture a hole in the drum membrane. When a Politzer knife has been ground down a little and is smaller than it was originally, it is about the right size for splitting the soft palate and uvula.

I have avoided that gag of Mr. Lane's because of those needle points which cut through the gum and which must go close to the follicles of unerupted teeth. I quoted Goyder when I spoke in criticism of the Lane technic; he says it spoils the teeth if the flap is taken from the alveolar processes and outside of them. Teeth are becoming more and more important to us as we find how they are needed in mastication, and how on infected mouths are based a great many pathological processes which continue during life.

The anesthetic is ether. I have had casualties, fatalities, in children with chloroform, and I do not see any reason for anybody using it. Children take ether just as well. The ether is given by a catheter in the nose, through which is blown air, ether saturated. The anesthetist sits with one hand on the pulse and one foot going quietly on a little foot bellows, giving a little stream of air and ether. When you put that catheter into the nose, put it in a measured distance and stitch it to the septum. If you do not stitch it, it may drop out or slip in too far.

As regards position, there is a little shelf on the operating table which hangs down from the end. The child's head lies on that so that it is very easy to see the whole of the hard palate. The child is surrounded by black towels and the mouth is in high light. If white towels are used the mouth is in shadow and you cannot see into it as well. It was on a cleft palate child that I first got the idea of using a black environment for the operation field.

The suture material is horsehair, of course, and it is always used double. In that way you get a stronger thread and one that will hold better in the tissues.

Mr. Goyder says the Langenbeck operation is not practical in little children, and is a mistake. So far as the size of the child is concerned, the Langenbeck would do as well as the Lane, I think. As a matter of personal experience, I never found a child with so small a palate and so wide a cleft but what I could do the Langenbeck operation.

These children must not be kept in a part of the hospital where suppurative cases are going on; they must not be handled by nurses who are giving enemata, who are washing other children and dressing their wounds. They must be taken care of by people not handling sepsis. I have found it not a bad plan to take the child to the hospital for operation, then send it home to convalesce in the environment to which it was accustomed, and let the mother bring it to the office for dressings.

The question of infection is a very important one. Eastman last year called attention to the necessity for plenty of blood in the flap in order to get union. I have left the flap to the mercy of the anterior palatine artery and ascending pharyngeal artery, and they keep the flap well nourished so that union will occur.

Dr. Levison is right about the little space at the front end of the cleft. It is a difficult thing to close it, and if it is not well closed there may be a leak of fluids up into the nose. I have filled in a piece from the cheek, and it is very curious to see how, after that has been done, there is a vivid flap in a pallid environment, because the mucosa of the lip is a deeper red than that of the hard palate. I do not see how Mr. Lane closes this place with his technic and especially when the projecting intermaxillary bone is in the way.

Finally, the man doing cleft palate operations must make up his mind to a high average of disappointments. The tissue used is thin and delicate and in a potentially septic environment. Usually sutures hold well about four days, and then those at the junction of the soft and hard palates begin to give way and a hole forms. When this occurs one may re-anesthetise and put in fresh sutures, but they go, under these circumstances, into tissue that is edematous and sleazy, and rarely hold well. Really it is just as well to let the condition take its own course and be content with the amount of healing gained at that operation, even though it be small. If there has been no trimming of the cleft edges no tissue is lost and secondary sutures may succeed when the primary have failed. The healing that you finally get after disappointments is a reward of patient merit; and that which happily comes at the first operation is a distinct blessing, and it does come so, though not as often as one would wish.

BOOK REVIEWS

Principles and Practice of Obstetrics. Second Edition. By Joseph B. DeLee, A. M., M. D., Professor of Obstetrics at the Northwestern University Medical School. Large octavo of 1087 pages, with 938 illustrations, 175 in colors. Cloth, \$8.00 net; half Morocco, \$9.50 net.

This large compend of obstetrics is profusely illustrated and systematically arranged to meet the needs of the busy general practitioner. The volume is attractive for undergraduates, but is too extensive for them to read thoroughly in the crowded curriculum of the modern medical school. The short bibliography at the end of each chapter will prove of some aid to men who desire to prepare themselves for a serious study of obstetrical problems, and will tend to lead them to the more complete references of the German texts.

A. B. S.

General Medicine. Edited by Frank Billings and J. H. Salisbury. Volume VI of Practical Medicine Series 1915, The Year Book Publishers, Chicago. 1915. Price \$1.50.

This volume presents, among other things, an exceptionally valuable digest of practically all the important work of the year on gastro-intestinal subjects and well repays reading for this one part alone.

Especially well worked up are the sections on the chemical, microscopical and radiographic methods of gastric and intestinal analyses.

G. H. T.

Manual of Vital Function Testing Methods and Their Interpretation. By Wilfred M. Barton, M. D., Boston. Richard G. Badger, 1916. Price, \$1.50.

Not long ago, following the rapid advances in our knowledge of pathology, it was the great effort